AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): An magnetic-field-generating apparatus comprising permanent magnet segments in the number of N, wherein N is an even number of 4 or more, arranged to form a ring-shaped magnetic circuit having a center hole; adjacent permanent magnet segments having such different magnetization directions that their magnetization directions successively change along a circumferential direction of said magnetic circuit; a basic magnetization phase angle θ between the magnetization directions of said adjacent permanent magnet segments being 720/N (°); and a magnetization direction of at least one permanent magnet segment in an essential unit obtained by circumferentially dividing said ring to 1/4 being deviated from said basic magnetization phase angle θ by such a deviating angle that a uniform magnetic flux flows in one direction along a diameter of said center hole.

2. (currently amended): The magnetic-field-generating apparatus according to claim 1, wherein said permanent magnet segments are arranged with a predetermined gap between ~~the adjacent one~~st adjacent permanent magnet segments.

3. (currently amended): The magnetic-field-generating apparatus according to claim 1, wherein said ring is constituted by four essential units comprising four symmetric quarters in the

first to fourth quadrants, with magnetization directions successively changing clockwise in the first and third quadrants, and counterclockwise in the second and fourth quadrants.

4. (original): The magnetic-field-generating apparatus according to claim 1, wherein the magnetization direction of a permanent magnet segment arranged at about 45° is deviated from said basic magnetization phase angle θ in each essential unit.

5. (currently amended): The magnetic-field-generating apparatus according to claim 1, wherein said deviating angle is +15°~~15°~~ or less.

6. (original): The magnetic-field-generating apparatus according to claim 1, wherein the number N of said permanent magnet segments is an even number of 8 to 20.

7. (original): The magnetic-field-generating apparatus according to claim 6, wherein the number N of said permanent magnet segments is 12.

8. (currently amended): The magnetic-field-generating apparatus according to claim 1, wherein a ~~said~~ magnetic field parallelness at least at about 45° is within ± 1° within 50 to 70% from the center of said hole in a substantially entire axial region of said magnetic circuit.

9. (original): A magnetic field orientation apparatus comprising the magnetic-field-generating apparatus recited in claim 1, and a heat treatment apparatus disposed in the hole of said magnetic-field-generating apparatus, said heat treatment apparatus comprising a cooling means, a heating means, and a means for holding articles to be heat-treated in this order from outside.

10. (currently amended): A magnetic field orientation apparatus comprising the magnetic-field-generating apparatus recited in claim 1 around ~~an~~ a magnetic orientation die for producing permanent magnets.